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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/092,490	03/08/2002	Yuichi Koga	04329.2760	1279

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Washington, DC 20005-3315

EXAMINER

VU, TRISHA U

ART UNIT	PAPER NUMBER
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2112

DATE MAILED: 01/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/092,490	Applicant(s) KOGA, YUICHI	
	Examiner Trisha U. Vu	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1 and 3-7 are presented for examination. Claim 2 had been canceled by Applicant.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Okada (6,073,195).

As to claim 4, Okada teaches a computer system comprising: a system board (bus controller) including at least one element connected to a transmission line (10) and a connector (e.g. 12₂) connected to the transmission line; and a first board (e.g. bus agent 16₂) connected through the connector, wherein an impedance matching element (dummy load 24) (Fig. 2) on the system board for impedance matching of the transmission line is connected to the transmission line of the system board when the first board is connected (e.g. when agent 16₁ is absent and agent 16₂ is connected) and the first board is detachable from the system board (through connector 12) (col. 3 lines 16-27) (Figs. 1-2 and col. 4, lines 1-22).

As to claim 6, Okada teaches a connector (switch 22 and dummy load 24) to connect a transmission line of a system board (bus controller) with a transmission line of an expansion board together (bus agent 16) (Figs. 1-2), the connector comprising: an impedance matching element (dummy load 24) having an impedance which is equal to that of the expansion board; and a mechanical switch (switch 22) which connects the transmission line of the system board to the impedance matching element when the expansion board is not attached to the connector (col. 4, lines 1-22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3, 5, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (6,073,195) in view of Matsunaga et al. (6,556,406) (hereinafter Matsunaga).

As to claim 1, Okada teaches a computer system comprising: a system board (bus controller) including a first connector and a second connector (connectors 12) arranged in parallel with a first transmission line (10) connecting at least one element on the system board (Figs. 1-2); a first board (bus agent 16₁) including a second transmission line (transmission line connecting the bus agent 16₁ to connector 12₁) (Figs. 1-2) that is connected to the first transmission line through the first connector (12₁) and to which an

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element on the first board having an impedance is connected (bus agent 16₁); and a dummy load (dummy load 24) having an impedance connected to the first transmission line (col. 4, lines 1-22), wherein the impedance of the dummy load is equal to the impedance of the element on the first board and the first board is detachable from the system board (through bus connector 12) (col. 3 lines 16-27 and col. 4 lines 3-22). However, Okada does not explicitly disclose the dummy load is a capacitor and detachable from the system board. Matsunaga teaches capacitor unit that is detachable via a connector (at least col. 6 lines 39-51 and col. 10 lines 26-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement detachable capacitor unit as taught by Matsunaga in the system of Okada so that capacitance/impedance can be changed by performing only replacement or addition of the capacitor units (col. 6 lines 45-51).

As to claim 3, Matsunaga further teaches the dummy load is a capacitor (as modified above).

As to claim 5, the argument above for claim 4 applies. However, Okada does not explicitly disclose the impedance matching element is a capacitor. Matsunaga teaches capacitor unit that is detachable via a connector (at least col. 6 lines 39-51 and col. 10 lines 26-38). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement detachable capacitor unit as taught by Matsunaga in the system of Okada so that capacitance/impedance can be changed by performing only replacement or addition of the capacitor units (col. 6 lines 45-51).

4. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okada (6,073,195) in view of Clouser et al. (5,884,053) (hereinafter Clouser).

As to claim 7, the argument above for claim 6 applies. However, Okada does not explicitly disclose the impedance matching element is a capacitor. Clouser teaches dummy load capacitor (col. 7, lines 26-44). It would have been obvious to one of ordinary skill in the art at the time the invention was made to implement dummy load capacitor as taught by Clouser in the system of Okada to provide an appropriate impedance.

Response to Arguments

5. Applicant's arguments with respect to amended claims 1 and 3-5 have been considered but are moot in view of the new ground(s) of rejection.
6. Applicant's arguments with respect to the rejection of claims 6-7 have been fully considered but they are not persuasive:

“Okada fails to teach at least an impedance matching element having an impedance which is equal to that of an expansion board” (claim 6, page 9 of the Remarks), note at least col. 4 lines 11-14 where it said dummy load 24 has substantially the same impedance as the bus agent 16.

In response to applicant's argument that “the Examiner failed to establish a *prima facie* case of obviousness, it is noted that Okada teaches each and every element in the claim except “the impedance matching element is a capacitor”. The examiner recognizes that obviousness can only be established by combining or modifying the teachings of the

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prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the modification, set forth above, would have been obvious because capacitor is well known by one of ordinary skill in the art for providing impedance and Okada teaches dummy load having an impedance, therefore it would have been obvious to implement dummy load capacitor as taught by Clouser in the system of Okada to provide an appropriate impedance desired by the user or system. Thus, the rejection and/or reasonable motivation for modification of the reference(s) set forth above is proper.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

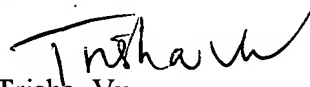
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

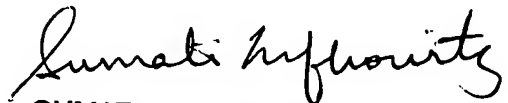
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trisha Vu whose telephone number is 571-272-3643. The examiner can normally be reached on Mon-Thur and alternate Fri 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Trisha Vu
Examiner
Art Unit 2112

uv


SUMATI IFFEKOWITZ
PRIMARY EXAMINER